IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Ryoichi Asai

Serial No.: 10/551,156

Group No.: Filed: 09/28/2005 Examiner:

Entitled: Methods For Obtaining Aptamers Using Microarray

INFORMATION DISCLOSURE STATEMENT

MS PCT Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. § 1.8(a)(1)(i)(A)

I hereby certify that this correspondence (along with any referred to as being attached or enclosed) is, on the date shown below, being deposited with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22312-1450.

Dated: January 25, 2007

By: Cliff Cannon-Cin

Dear Sir or Madam:

The citations listed below, copies attached, may be material to the examination of the above-identified application, and are therefore submitted in compliance with the duty of disclosure defined in 37 C.F.R. § 1.56 and § 1.97. Also attached for the Examiner's convenience is an English translation of the International Search Report and International Preliminary Examination Report of the parent International Application No. PCT/JP2004/004102, as a concise explanation of relevance of the publications not in published in English, cited therein and below.

The Examiner is requested to make these citations of official record in this application:

- International Publication No. WO 99/11818 of Karube et al., "Method for detecting highly functional polypeptides or nucleic acids," (1999) in Japanese with English abstract;
- International Publication No. WO 01/51663 of Bass et al., "Integrated systems and methods for diversity generation and screening," (2001) provided by WIPO;

- International Publication No. WO 01/57259 of Ellington, "Signaling aptamers
 that transduce molecular recognition to a differential signal," (2001) provided by
 WIPO;
- International Publication No. WO 01/69247 of Carlsson et al., "Methods of making and using microarrays of biological materials," (2001) provided by WIPO;
- JP 2000-308487 of Murakami *et al.*, "Selection of primer base sequence and apparatus therefore," (2000), in Japanese accompanied by computerized English translation;
- JP 2002-508191 of Gold et al., "Nucleic acid ligand diagnostic biochip," (2002) provided by WIPO;
- JP 2002-207026 of Ito *et al.*, "Nucleic acid aptamer self-integrated biosensor and chip device equipped therewith as detection part," (2002), in Japanese accompanied by computerized English translation;
- JP 2003-508729 of Stanton et al., "Nucleic acid-based detection," (2003) provided by WIPO;
- Asai et al., "In vitro selection of DNA aptamers on chips using a method for generating point mutations," Anal Lett, 37:645-656, (2005), provided by WIPO;
- Brody and Gold, "Aptamers as therapeutic and diagnostic agents," *J Biotechnol*, 74:5-13 (2000);
- Ellington and Szostak, "In vitro selection of RNA molecules that bind specific ligands," Nature, 346:818-822 (1990);
- Tuerk and Gold, "Systematic evolution of ligands by exponential enrichment: RNA ligands to bacteriophage T3 DNA polymerase," *Science*, 249:505-510 (1990);
- Walter et al., "High-throughput protein arrays: prospects for molecular diagnostics," Trends Mol Med, 8:250-253 (2002); and
- Yokobayashi *et al.*, "Directed evolution of trypsin inhibiting peptides using a genetic algorithm," *J Chem Soc*, 1:2435-2437 (1996).

This Information Disclosure Statement under 37 C.F.R. § 1.56 and § 1.97 is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that any one or more of these citations constitutes prior art.

Dated: January 25, 2007

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FORM PTO-1449 (Modified)

Department of Commerce---Patent and Trademark Office

SHIMIZU-10070 Attorney Docket,

Serial No.: 10/551,156

Applicant: Ryoichi Asai

| INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use Several Sheets If Necessary) (37 CFR § 1.98(b)) | | | | | Filing or 371(c) Date: 09/28/2005 | | Group Art Unit: | | |
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| | | | | U.S. PATENT DOC | UMENTS | | <u> </u> | | |
| Examiner Initials | Cite No. | Serial / Patent Number | Issue Date | · Applicant / Patentee | | Class | Subclass | Filing Date | |
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| | | F | OREIGN PATENTS | OR PUBLISHED FOR | REIGN PATENT APPLI | CATIONS | | | |
| | | Document Number | Publication Date | Country / Patent Office | | Class | Subclass | Subclass Translation Yes No | |
| | 1 | WO 99/11818 | 03/11/1999 | | PCT | | | . X | NO |
| • | 2 | WO 01/51663 | 07/19/2001 | | PCT | | | | |
| | 3 | WO 01/57259 | 08/09/2001 | | PCT | | | | |
| | 4 | WO 01/69247 | 09/20/2001 | | PCT | | | | |
| | 5 | JP 2000-308487 | 11/07/2000 | • | Japan | | | х | |
| | 6 | JP-2002-508191 | P-2002-508191 03/19/2002 Japan | | Japan | | | | |
| | 7 | JP 2002-207026 | 07/26/2002 | | Japan | | | х | |
| | 8 | JP2003-508729 | 03/04/2003 | | Japan | | | | |
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| | | r | | | ate, Relevant Pages, Plac | | | | |
| | 9 | Asai et al., "In vitro selection of DNA aptamers on chips using a method for generating point mutations," Anal Lett, 37:645-656, (2005) | | | | | | | |
| | 10 | Brody and Gold, "Aptamers as therapeutic and diagnostic agents," J Biotechnol, 74:5-13 (2000) | | | | | | | |
| | 11 | Ellington and Szostak, "In vitro selection of RNA molecules that bind specific ligands," Nature, 346:818-822 (1990) | | | | | | | |
| | 12 | Tuerk and Gold, "Systematic evolution of ligands by exponential enrichment: RNA ligands to bacteriophage T3 DNA polymerase," Science, 249:505-510 (1990) | | | | | | | |
| | 13 | Walter et al., "High-throughput protein arrays: prospects for molecular diagnostics," Trends Mol Med, 8:250-253 (2002) | | | | | | | |
| | 14 | Yokobayashi et al., "Directed evolution of trypsin inhibiting peptides using a genetic algorithm," J Chem Soc, 1:2435-2437 (1996) | | | | | | | |
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